

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PCT GROUP

In re the Application of:) Title: Injection Means
Peter John Crocker)
)

U.S. Serial No: Not Yet Assigned) Art Unit: Unknown
)

International Application No.:)
PCT/GB00/03061) Examiner: Unknown
)

International Filing Date:)
14 August 2000) Atty. Docket: IPL-2-PCT-US
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U.S. Filing Date:) I hereby certify that this
Filed Herewith) correspondence is being deposited with
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for Patents, Washington, D.C. 20231 on
)

FIRST PRELIMINARY AMENDMENT

Honorable Commissioner of
Patents and Trademarks
Washington, D.C. 20231)

Sir:

Please amend the above-identified International (PCT)
Application, which is filed herewith, as follows:

In order to reduce the filing fee, and also improve the form
of the claims and thereby expedite the prosecution, please cancel
Claims 1 - 45 and substitute new Claims 46 - 51 as follows:

46. Apparatus for injecting a substance into a surface which apparatus comprises a needle, a container for the substance to be injected, a means for applying the substance from the container to the tip of the needle, a means for driving the needle to penetrate the surface and deliver the substance thereto which means comprises a block slidably mounted in a conduit which block is accelerated by a controlled force to strike the needle assembly thereby inducing an acceleration of the needle to drive it into the surface.

47. An apparatus as claimed in Claim 46 in which, in use, the majority of the energy for penetration after contact with the surface comes from the momentum of the needle and associated moving parts and not from the continued force of the driving means.

48. Apparatus as claimed in Claim 46 in which the driving means is pneumatically operated.

49. An apparatus as claimed in Claim 46 in which there is a stopping means incorporated in the driving means adapted to bring the needle to a rapid stop.

50. Apparatus as claimed in Claim 49 in which the driving means comprises a block slidably mounted in a conduit so that

application of a pneumatic force or spring at one end of the conduit will propel the block at speed down the conduit, so that it will strike an end piece which forms part of, or is connected to the end of the needle.

51. Apparatus as claimed in Claim 50 in which there are means to generate a pulse of gas in the conduit which propels the block down the conduit.

Respectfully submitted,


Ronald B. Sherer
Ronald B. Sherer
Counsel for Applicant
Registration No. 19,977

Bartlett & Sherer
103 South Shaffer Drive
New Freedom, PA 17349
Telephone: 717-227-1197
Fax: 717-227-9008